„Improving soil fertility and crop yield by using new fertilizers based on natural organic compounds”

Executive summary - Objectives

The main objective of project is the promotion of a some performing technologies for agricultural crop fertilization and regeneration of slightly productive soils due to long-term fertility degradation applying new classes of fertilizers constituted from humic substances (humic acids and their salts) associated or not with mineral salts carrying nutritive elements.

These fertilizers which have a high content of humic acids can contribute to improve the plant nutrition, amelioration of soil fertility indices, as well as food security by high productions and obtaining a higher ecological quality agri-food products.

For the above mentioned scope, the research provided in the project framework, based on the ample documentation in special literature on the most advanced international research results referring to the problem regarding the agronomical and agrochemical efficiency of humic fertilizers, has in view:

- ✓ Study, by proper research, of humic acids effects and some humates on the agrochemical and microbiological properties in soils with different fertility levels (experiments on models in laboratory and glasshouse); agrochemical properties amelioration and strong stimulation of microorganisms activity with direct benefit effects on plant growing and indirect on soil humus regeneration are in view;
- ✓ Study of composition and characteristics of some native, natural, organic materials (low-grade coal, peats), as possible sources for extraction of humic substances;
- ✓ Elaboration of some profitable technologies for extraction of humic substances and production of some organic and inorganic fertilizers on their basis;
- ✓ Establishment on experiment basis of agronomical and agrochemical efficiency for different agri-food and non-agri-food crops of new formulated fertilizers, applied by conventional and alternative technologies.

Research results of project will be highly efficient used by:

- ✓ Elaboration and submit to OSIM of two proposals of brevets;
- ✓ Transfer of technologies for production and use of humic fertilizers to the economic agents;
- ✓ Increase of partners visibility mentioned in project by presenting some scientific works within some international and national manifestations, and publishing of papers in a journal;
- ✓ Large dissemination obtained knowledge.